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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,103	07/19/2006	Helmut Maeuser	280287US2PCT	4210
22850 7590 02/02/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHEN, SHIH CHAO	
			ART UNIT 2821	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/555,103

Applicant(s)

MAEUSER, HELMUT

Examiner

Shih-Chao Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-21 and 23-32 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/2/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on November 02, 2005 has been considered by the examiner.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plural coupling electrodes in claim 23 & the electric heating element in claim 30 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
  - (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
  - (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
  - (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
  - (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
  - (f) BACKGROUND OF THE INVENTION.
    - (1) Field of the Invention.
    - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
  - (g) BRIEF SUMMARY OF THE INVENTION.
  - (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
  - (i) DETAILED DESCRIPTION OF THE INVENTION.
  - (j) CLAIM OR CLAIMS (commencing on a separate sheet).
  - (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
  - (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).
4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

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of the following is required: because an electric heating element is not described in the specification.

***Claim Objections***

5. Claim 17 is objected to because of the following informalities: in line 8, "the at least thin wire" should be changed to --the at least of one thin wire--. Appropriate correction is required.

6. Claim 25 is objected to because of the following informalities: in line 1, "the edge zone" should be changed to --the zone of the edge--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 17-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Regarding claim 17, the phrase "a surface of the glazing" renders the claim(s) indefinite because the glazing can be the antenna glazing or the rigid panes.

10. Claim 17 recites the limitation "the two ends" in line 10. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 17-20 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagy (U.S. Patent No. 6,191,746).

Regarding claim 17, Nagy teaches in figures 1-2 an antenna glazing for automobiles, comprising: an electrically conducting cladding [10] extending surface-wise over a surface of the glazing up to a zone of a free edge of the cladding, the cladding serving as antenna element (See col. 1, lines 56-59); and a coupling electrode [24] including external connections, and being coupled in a capacitive regime to the electrically conducting cladding with interposition of an insulating layer (i.e. glass layer), and the coupling electrode being composed of at least of one thin wire; and wherein the at least of one thin wire (i.e. the parasitic slot transmission line) starts from the zone at the edge of the glazing, is conducted over the surface covered by the cladding, and is returned to the zone of the edge with at least one fold, so that the two ends of the wire are situated in the zone of the edge of the glazing (See Fig. 2 & col. 2, lines 33-60).

Regarding claim 18, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the wire of the coupling electrode forms a loop (See Fig. 2), starting from its point of reversal furthest from the ends of the wire, is folded back until the ends of the wire are in proximity, the portions of the wire extending parallel to one another with spacings that are appreciably larger than the thickness of the wire.

Regarding claim 19, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the two ends of the wire of the coupling electrode [24] are placed in a narrow local neighborhood.

Regarding claim 20, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the two ends of the wire of the coupling electrode [24] are placed at locations spaced apart.

Regarding claim 25, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the edge zone is covered with an opaque edge strip [40], the strip covering the coupling electrode [24] at least partially.

Regarding claim 26, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the external connections for the coupling electrode [24] are established with aid of a connection element [20], forming an interface that is linked to the ends of the wire of the coupling electrode in the zone at the edge of the glazing.

Regarding claim 27, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the coupling electrode [24] is a component prefabricated on a support [12], with an adhesive layer for fixing by adhesion of the wire to the antenna glazing.

Regarding claim 28, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 27, wherein the prefabricated component comprises an interface [20] for establishing the external connections of the coupling electrode [24].

Regarding claim 29, Nagy teaches in figures 1-2 the antenna glazing as claimed in claim 17, wherein the conducting cladding [10] and the coupling electrode [24] are placed inside a composite forming the glazing, from which the ends of the coupling electrode and/or an interface linked to them are conducted to an outside point.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagy (Cited above) in view of Epperson (U.S. Patent No. 6,567,647).

Nagy teaches every feature of the claimed invention in paragraph 12 except for a matching resistor.

Epperson teaches in figures 3-4 the matching resistor [R].

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention made by using the matching resistor as taught by Epperson in order to dissipate power that is reflected from the antenna.

15. Claims 23-24 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagy (Cited above) in view of Sauer (U.S. Patent No. 6,320,276).

Nagy teaches every feature of the claimed invention in paragraph 12 except for plural coupling electrodes; the at least one thin wire of the coupling electrode exhibits a diameter in a range lying between 10 and 100 um; and a diversity antenna device.

Epperson teaches in figures 1-4 plural coupling electrodes [20-23]; the at least one thin wire of the coupling electrode exhibits a diameter in a range lying between 10 and 100 um (i.e. 20 um, See col. 3, lines 20-22); and a diversity antenna device (See FIG. 4, col. 4, lines 4-6).



In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention made by using coupling electrodes as taught by Epperson in order to have a diversity antenna (See col. 4, lines 4-6).

16. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagy (Cited above) in view of Nakase (U.S. Patent No. 5,285,048).

Nagy et al. teaches every feature of the claimed invention in paragraph 12 except for an electric heating element.

Nakase teaches in figure 1 an electric heating element [H1].

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention made by using the heater wire as taught by Nakase in order to remove window glass fog (See col. 2, lines 55-56).

#### ***Allowable Subject Matter***

17. Claim 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (571) 272-1819. The examiner can normally be reached on Monday-Thursday from 7 AM to 5:30 PM, Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shih-Chao Chen  
Primary Examiner  
Art Unit 2821

  
**SHIH-CHAO CHEN**  
**PRIMARY EXAMINER**

SXC  
January 31, 2007